QC

Quality Control

Memo

											DQA:	Date	
NCR: Y	'es	/ No				WORK ORDER NON-C	O	NFORN	MANCE / UP	DATE	QA Closed:	Date	::
Manta Onda			· · · · · ·			DISPOSITION				AGAINST DE	EPARTMENT,		•
Work Orde  Part N  NCR N	- No					Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube  Machining  noforming  Large Fab	Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. e/Packaging Supplier	Engineering Quality Other
Root	П				Descri	ption of work order update		nitial	Act	ion	Sign &		
Cause	l	Date	Step	Qty	(	or Non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved													
			<del>.</del>	<del>,</del>			AUL	LT CATE	GORY				
Landi		Gear Bending Centre N Cracks Crushed/ Cuffs Heat Trea	'Crimped at		o/s	General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short		Instruct Mainte Mislabe Misread	on Incomplete ions Incomplete/i nance iled	Jnclear	Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct ssing	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
		Ripples i	n Bend			Drill Holes		Offset					

Out of Calibration Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drawing

Finish

Folio

\*97006\*

Page 2

Quality Control

February-14-13	1:02:57 PM			. , , , ,									
Item ID: Revision ID:	D3912-041			Accept	*N9000	<u>040</u>	100	)* 5	Setup		171.	S1*	-
Item Name:	Eyebolt Recei	ver Assembly								Stop	*N:	S2*	
Start Date:	2/13/13	Start Qty: 4.00	*4*		Cust Item II	<b>)</b> :							
Required Date:	2/25/13	<b>Req'd Qty:</b> 4.00	*4*		<b>Customer:</b>							•	
Reference:								_	_	C4 4			
Approvals:	Process Pla	an:	Date:	Tooling:	Da	te:		J	Run	Start	1/7	R1*	
••			Date:	•	Da	te:				Stop	*N	R2*	
Sequence ID/ Work Center I	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Rej Qty		Reject Number	Insp. Stamp	
170		Identify as per dwg & St	ock Location:	t み <sup>0.00</sup>				1.					
*170* Packaging Packaging		Мето		0.00				HX	144 Tr T 1888			3-3-	18
											,		•
180		QC21- Final Inspection	- Work Order Release	0.00					1	21.	2/2	$d\Lambda$	
*1		Memo		0.00						4	2/20	**	

											DQA:	Date	e:	
NCR: Y	'es	/ No		•		WORK ORDER NON	-CO	NFORM	MANCE / UP	DATE	QA Closed:	Date	e:	
				·	****	DISPOSITION				AGAINST DE				
Work Orde	-					Rework Scrap		I .	Skid-tube Machining	Crosstube Small Fab	Pro	Water Jet d. Eng. Coor.		neeringQuality
NCR N	•					Use-as-is Work Order Update		Therm	noforming Large Fab	Finishing Composite	Rec/Stor	e/Packaging Supplier		Other
Root					í	ption of work order update	i	Initial		tion	Sign &		0.0	
Cause		Date	Step	Qty	(	or Non-conformance	CI	hief Eng	Desc	ription	Date	Verification	<u> </u>	Inspector
Doc/Data			<u> </u>											
Equip/Tooling							į				1			
Operator			ļ						i					
Material													1	
Setup														
Other							1					•	1	
Process											,		-	
Supplier							ĺ		·					
Training											1			•
Unapproved			ļ	1										
							FAU	LT CATE	GORY					<del></del> -
Landi	ng (	Sear				General					_	_	_	
		Bending			Γ	Bend		Grain			Ovalized		Pressu	re/Forced
	Г	Centre N	ot Conce	ntric to	o/s	BOM/Route		Hardwa	ire		Over/Under	tolerance	Tempe	rature/Cure
		Cracks				Broken/Damaged		Inspect	ion Incomplete		Part Incorred	ct	Weld	
	<u> </u>	Crushed/	Crimped			Burrs			ions Incomplete/	'Unclear	Part Lost/Mi	ssing	Wrong	Stock Pulled
	一	Cuffs				Contamination		Mainte			Part Moved			
		Heat Trea	at		<b>—</b>	Countersink	F	Mislabe			Positioned V	Vrong		
	$\vdash$	Inspectio		Tube		Cut Too Short		Misread			Power Loss/		Other	

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

**Picklist Print** 

February-14-13 10:44:47 AM

Work Order ID:

97006

Parent Item:

D3912-041

Parent Item Name:

Eyebolt Receiver Assembly

**Start Date: 2/13/13** 

Required Date: 2/25/13

Start Otv: 4.00

Required Oty: 4.00

Comments:

IPP RevA: new issue DD 09.11.18 verified by:EC

IPP Rev:B 10.06.10 memo in

seq110 \*\*\*IF PLUNGER GOES IN TO DEEP, INSTALL A WASHER (AN960C516L) IF

NECESSARY BETWEEN PLUNGER AND D3912-1. YOU MAY HAVE TO ENLARGE WASHER HOLE FOR IT TO FIT\*\*\* DD verf.JLM IPP REV:C AS PER REV B 10-08-05 JLM

VERIFIED:DD

	VERIFIED:DD									
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit Total Qty	Qty Date Status Issued Issued
NAS1149C0663R		Purchased	No				Each	75.0000	4,	1/12/19
Washer										7215/05/18
				Location		Loc Oty	<u>L</u>	oc Code		
				ST292		75				
				110	5893	75			4	///////////////////////////////////////
D3912-1		Manufactured	No			100	Each	32.0000	1 4	1 13/12/0
Eyebolt										
				Location		Loc Oty	. <u>L</u>	oc Code		
				ST144		32				
					073	2				
					538	13				
D2012-2			Ma	93	713	17		45,0000		
D3912-3 Eyebolt Block		Manufactured	No			100	Each	45.0000	2 8	1/5/3/03/13
Eyebbit Block				Location		Loc Qty	ı	oc Code		
				ST144				oc couc		//
	•				265	45				
					533	8				
					865	2				
					663	12				
					746	16			<u> </u>	

Date: DQA: **WORK ORDER NON-CONFORMANCE / UPDATE** NCR: Yes / No QA Closed: Date: AGAINST DEPARTMENT/PROCESS DISPOSITION Work Order: Engineering Water Jet Crosstube Rework Skid-tube Small Fab Prod. Eng. Coor. Quality Machining Scrap Part No. Other Thermoforming Rec/Store/Packaging Finishing Use-as-is Supplier NCR No. Work Order Update Large Fab Composite Sign & Action Description of work order update Initial Root Date Verification OC inspector Qtv or Non-conformance Chief Eng Description Cause Date Step Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved **FAULT CATEGORY Landing Gear** General Ovalized Pressure/Forced Bend Grain Bending Over/Under tolerance Temperature/Cure BOM/Route Hardware Centre Not Concentric to O/S

Inspection Incomplete

Maintenance

**Out of Calibration** 

**Outside Dimensions** 

Out of Sequence

Mislabeled

Misread

Offset

Instructions Incomplete/Unclear

Broken/Damaged

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Burrs

Part Incorrect

Part Moved

Part Lost/Missing

Positioned Wrong

Power Loss/Surge

Weld

Other

Wrong Stock Pulled

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Cracks

Cuffs

Heat Treat

Crushed/Crimped

Inspection Strip in Tube

**Torque Waves in Extrusion** 

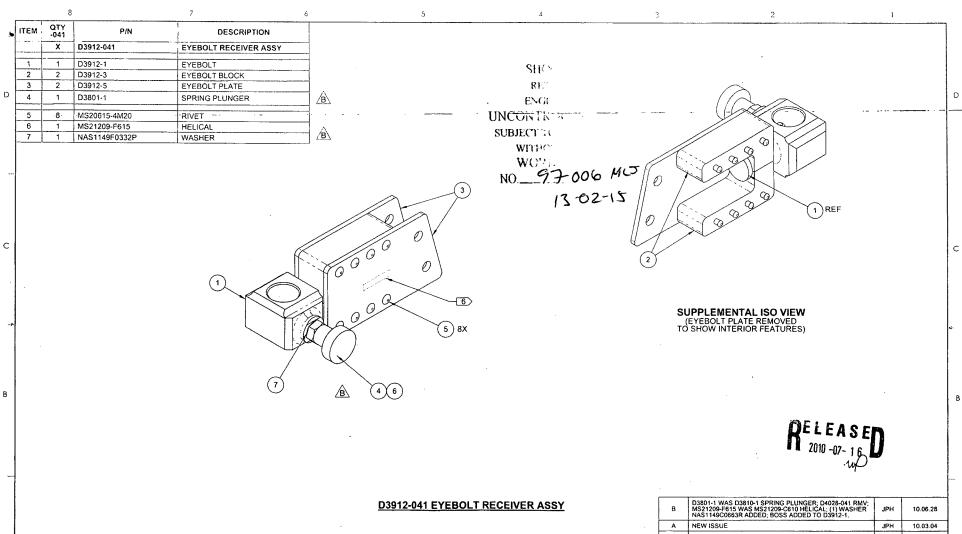
February-14-13 10:44:48 AM

Work Order ID:	97006								
Parent Item:	D3912-041						Start 1	Date: 2/13/13	Required Date: 2/25/13
Parent Item Name:	Eyebolt Receiver A	Assembly					Start	<b>Qty:</b> 4.00	Required Qty: 4.00
D3912-5 Eyebolt Plate		Manufactured	No		100	Each	36.0000	2	8/3/03/18
				Location	Loc Qty		Loc Code		
				ST144	24				
				83367	1				
				88406	23				_
				ST145	12				
				93796	12				_ // / /
D3801-1	~.	Manufactured	No			Each	20.0000		4 / 1/2 /03/18
Hand Retractable Spring	g Plunger								7010
				Location	Loc Oty		Loc Code		
				GA	2				_ //
				82615	2				- G79020
				ST066	18				_
				75178	11				_
				93789	7				- 01 1 1
MS20615-4M20 RIVET		Purchased	No		100	Each	223.0000	8	32 / 3 / 3 / 8
RIVLI				<u>Location</u>	Loc Qty		Loc Code	<del></del>	
				GA	223				
				119546	26				-/
				120644	7				
				121339	9				
				121463	32				
				122807	149			_32_	- 711
MS21209-F615 Heli-Coil		Purchased	No			Each	12.0000		4 6/3/03/18
		•		<b>Location</b>	Loc Oty		Loc Code		7) - 7 - 7
				GA			230 0000		
					12			<del>- 4</del>	— <i>V</i>
				121561	12				<del>_</del>

NCR: Ye	es / No				WORK ORDER NON-C	ONFOR	MANCE / UP	DATE	QA Closed:	Date:	
Work Orde	r:				DISPOSITION	,		AGAINST DE	PARTMENT		1
Part N					Rework Scrap Use-as-is	Ther	Skid-tube Machining moforming	Crosstube Small Fab Finishing	4	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR N	0			·	Work Order Update	<u> </u>	Large Fab	Composite	<u></u>	Supplier	l LJ
Root					ption of work order update	Initial		tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief En	g Desc	ription	Date	Verification	QC Inspector
Doc/Data											
quip/Tooling	_										•
Operator											
Material											
Setup			'	:		i.			į		
Other											
Process		1									
Supplier		] .						•			
Training											,
Unapproved	·		<u> </u>							<u> </u>	
		<u>.</u>			F	AULT CAT	EGORY				
Landin	ng Gear				General				٦	<u></u>	<b>.</b>
	Bending			L	Bend	Grain		<u> </u>	Ovalized		Pressure/Forced
	Centre N	lot Conce	ntric to	o/s	BOM/Route	Hardv			Over/Under	_	Temperature/Cure
	Cracks			L	Broken/Damaged	Inspec	tion Incomplete	· <u>  ·</u>	Part Incorre	<del></del>	Weld
	Crushed	/Crimped			Burrs	Instru	ctions Incomplete,	/Unclear	Part Lost/M	_	Wrong Stock Pulled
. [	Cuffs				Contamination	Main	tenance	L	Part Moved		
	Heat Tre	eat.			Countersink	Mislal	peled	L	Positioned \	Wrong	7
	Inspecti	on Strip ir	1 Tube	· [	Cut Too Short	Misre	ad	L	Power Loss	/Surge	Other
	Ripples	in Bend			Drill Holes	Offset					
	Torque '	Waves in	Extrusio	n [	Drawing	Out o	f Calibration				
	Turning	Sequence	9		Finish	Out o	f Sequence				
	Wave/T	wist in Tu	be		Folio	Outsi	de Dimensions				

DQA:

Date:



REV. DESCRIPTION BY DATE DESIGN **DART AEROSPACE LTD** DRAWN HAWKESBURY, ONTARIO, CANADA CHECKED DRAWING NO. REV. B D3912 MFG, APPR SHEET 1 OF 3 APPROVED TITLE SCALE EYEBOLT RECEIVER ASSY DE APPR. NTS COPYRIGHT © 2010 BY DART AEROSPACE LTD DATE 10.06.28

NOTES: 1) MATERIAL: N/A

2) FINISH: NONE

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED 4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: N/A

6) IDENTIFICATION: IDENTIFY WITH DART P/N D3912-041 USING FINE POINT PERMANENT INK MARKER

7) WEIGHT -041: 1.58 lbs

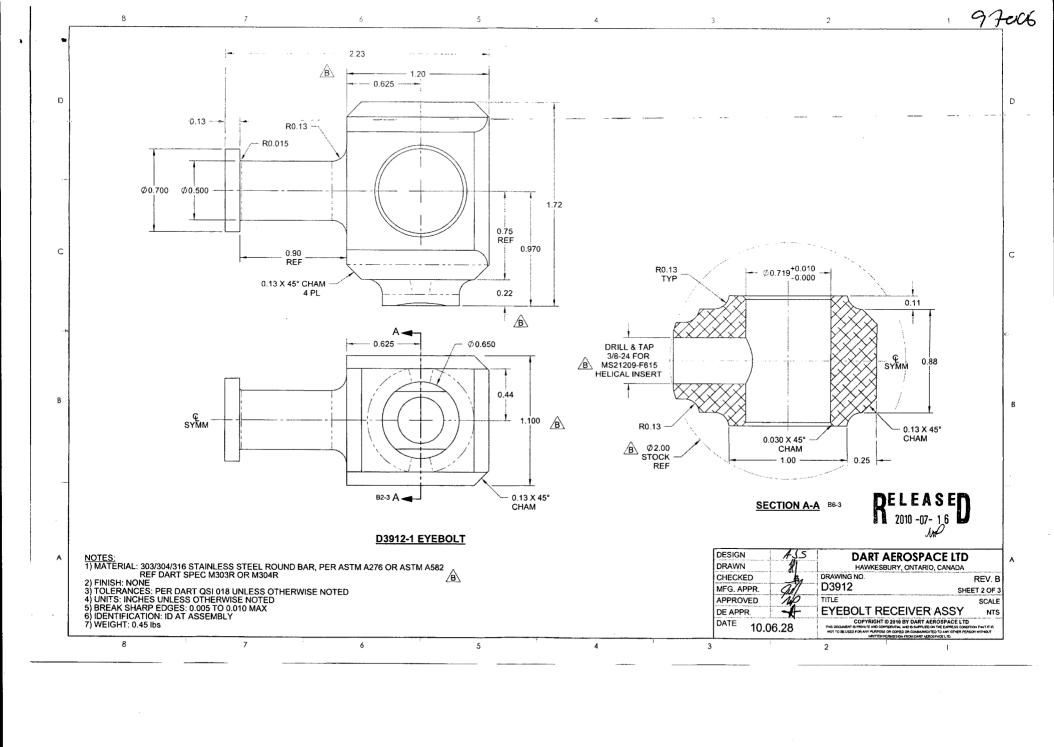
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6

5

3

8



97006

В

0.800+0.000 2.30 Ø0.129 THRU 1.500 4 PL 0.400 0.500 PITCH 0.50 REF 1.00 0.750 +0.000 R0.13 0.500 - R0.125 TYP 0.516 + 0.015 - 0.000 0.63

## **D3912-3 EYEBOLT BLOCK**

NOTES: 1) MATERIAL -3: 303/304/316 STAINLESS STEEL BAR, PER ASTM A276 REF DART SPEC M303B OR M304B

- -5: 303/304/316 STAINLESS STEEL SHEET ANNEALED 2B, 0.125 THK PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME 5A240 REF DART SPEC M303S11GA OR M304S11GA

D

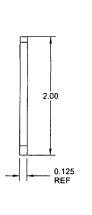
С

В

- 2) FINISH: NONE
  3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  4) UNITS: INCHES UNLESS OTHERWISE NOTED
  5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  6) IDENTIFICATION: ID AT ASSEMBLY

- 7) WEIGHT -3: 0.30 lbs -5: 0.24 lbs

1.500 0.500 PITCH ا0.375 کے R0.13 - 0.38 0.25 0.517 1.000 1.500+0.020 105° REF Ø0.129 Ø0.257 8 PL 2 PL 3.65 3.69 REF



**D3912-5 EYEBOLT PLATE** 



DESIGN DRAWN	4/5	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	4,	DRAWING NO.	REV. B
MFG. APPR.	all	D3912 <sub>SHE</sub>	ET 3 OF 3
APPROVED	NA	TITLE	SCALE
DE APPR.	-#-	EYEBOLT RECEIVER ASSY	NTS
DATE 10.0	6.28	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONDIDENTAL AND IS SUPPLED ON THE EXPRESS CONDI- MOT TO BE USED FOR ANY PARPOSE OR COPED OR COMMUNICATED TO ANY OTHER PER- WISTITEMPERASSION FROM DART AEROSPACE LTD	

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